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Attorney's Docket No.: 12758-056US1
Client Ref. No.: 1997P01986US01

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1 to 16. (Canceled)

17. (Currently Amended) A method for ~~operating~~ use in a communication network, ~~said~~

~~method comprising: employing~~ that supports data frames ~~defined by~~ of a first protocol, where a

data frame ~~containing~~ contains message data and a destination address ~~identifying~~ that

corresponds to a ~~data-frame~~ receiver ~~to receive said data frame~~, the method being performed in

conjunction with a host device and a switching device that are on the communication network

~~and message data~~;

    wherein the host device:

        ~~generating~~ generates data packets ~~for transmission~~ from ~~said~~ the data frame,

where a data packet ~~comprising~~ comprises a portion of ~~said~~ the data frame, the data

packet being of ~~defined by~~ a second protocol, ~~each~~ the data packet ~~containing~~ comprising

the destination address and a first connection identifier that corresponds to the host

device; and ~~identifying a data packet receiver to receive said data packet~~;

        ~~transmitting said~~ transmits the data ~~packets~~ packet to the switching device; and

~~over said communication network~~;

    wherein the switching device:

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receives the data packet, the data packet comprising a received data packet;

upon receipt in a receiver of a transmitted data packet containing a destination address of a subject data frame, reading said reads the destination address of the subject data frame from said transmitted the received data packet;

determining selects a new second connection identifier for the received data packet based on the said destination address, said the second new connection identifier corresponding to the identifying a new data packet receiver;

generates a new data packet from the received data packet, the new data packet comprising the second connection identifier and the message data, wherein the switching device receives generating, prior to receipt of all of said data packets of said subject generated from the data frame while the new data packet is being generated, new data packets from data packets received from said subject data frame, said new data packets containing said new connection identifier;

checks the new data packet checking message data of said subject data frame for a transmission errors according to error using a predetermined error checking technique, the predetermined error checking technique comprising comparing reference data having a rated value and contained in said subject data frame to said the message data, wherein checking begins while the switching device receives data packets generated from the data frame; and

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transmitting new data packets of said subject data frame that are error-free to said new data packet transmits the new data packet to the receiver if the new data packet does not contain a transmission error.

18. (Currently Amended) The method according to of claim 17, wherein the switching device further comprising:

modifying said modifies the message data of said subject data frame; and

generating generates new reference data for said subject data frame according to said packet to use in the predetermined error checking technique, said the new reference data being compared to modified message data during checking instead of said reference data.

19. (Currently Amended) The method according to of claim 18, wherein said the message data is modified to contain include a counter value dependent that is based on prior transmissions of said subject data packets for the data frame.

20. (Currently Amended) The method according to of claim 18, wherein the switching device:

receives plural data packets from the host device, the plural data packet comprising received data packets;

reads destination addresses from the received data packets;

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selects a second connection identifier for the received data packets based on the

destination addresses, the second connection identifier corresponding to the receiver; and

generates new data packets from the received data packets, the new data packets

comprising the second connection identifier and message data;

wherein ~~said~~ checking ~~said message data for transmission errors~~ and ~~said~~ generating the

~~said~~ new reference data occur contemporaneously with ~~said~~ generating ~~said~~ the new data packets

~~of said subject data frame~~.

21. (Currently Amended) The method ~~according to~~ of claim 17, wherein the switching

device:

receives plural data packets from the host device, the plural data packet

comprising received data packets;

reads destination addresses from the received data packets;

selects a second connection identifier for the received data packets based on the

destination addresses, the second connection identifier corresponding to the receiver; and

generates new data packets from the received data packets, the new data packets

comprising the second connection identifier and message data; and

wherein ~~said~~ generating ~~said~~ the new data packets occurs contemporaneously with receipt

of ~~said~~ the plural data packets.

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22. (Currently Amended) The method ~~according to~~ of claim 17, wherein ~~said~~ the first

protocol is the Internet protocol or a protocol based on the Internet protocol; and

wherein ~~said~~ the second protocol is the ATM protocol or a protocol based on the ATM

protocol.

23. (Currently Amended) The method ~~according to~~ of claim 17, wherein the switching

device ~~further comprising~~:

~~storing~~ stores, in a first revaluation memory, an entry for ~~assisting~~ use in recognizing ~~said~~

the received data packet ~~containing said destination address in a first revaluation memory, said~~

~~first revaluation memory for storing said connection identifier of said data packet of said subject~~

~~data frame containing said destination address~~.

24. (Currently Amended) The method ~~according to~~ of claim 23, wherein the switching

device ~~further comprising~~:

stores the second connection identifier in the first revaluation memory after receiving the

received ~~said~~ data packet ~~of said subject data frame having said destination address~~, the second

connection identifier overwriting the entry, ~~overwriting said entry in said first revaluation~~

~~memory with said new connection identifier~~; and

stores the entry in the first revaluation memory after receiving a last data packet ~~of said~~

~~subject~~ that corresponds to the data frame, the entry overwriting the second connection identifier

overwriting said new connection identifier stored in said first revaluation memory with said entry.

25. (Currently Amended) The method ~~according to~~ of claim 24, wherein the switching device identifies ~~new connection identifiers for~~ data packets ~~of said subject~~ that correspond to the data frame, and that are received after ~~said~~ the received data packet ~~containing said destination address, are identified with assistance of said new~~ using the second connection identifier stored in ~~said~~ the first revaluation memory.

26. (Currently Amended) The method ~~according to~~ of claim 23 ~~17~~, wherein the switching device ~~further comprising~~:

~~storing said new~~ stores the second connection identifier ~~for said data packet containing said destination address~~ in a second revaluation memory, ~~said~~ the second revaluation memory ~~used~~ for allocating ~~said new~~ the second connection identifier to ~~said~~ the destination address.

27. (Currently Amended) The method ~~according to~~ of claim 26, wherein at least one of ~~said~~ the first revaluation memory and ~~said~~ the second revaluation memory ~~is~~ comprises an associative memory.

28. (Currently Amended) A switching unit for ~~switching~~ routing data, the data comprising a number of data frames of a first protocol, each ~~containing~~ data frame comprising

message data and ~~arranged according to a first protocol and containing~~ a destination address

~~identifying~~ corresponding to a receiver ~~of said data frame~~, ~~and~~ each data frame corresponding to

~~a number of~~ data packets for transmission, ~~said~~ each data ~~packets each containing~~ packet

comprising a portion of ~~said~~ the message data and ~~of a data frame arranged according to a second~~

~~protocol and containing~~ a first connection identifier ~~identifying said switching unit as receiver of~~

~~said data packets~~, the switching unit comprising:

a receiver for receiving ~~said transmitted~~ the data packets;

a processing unit for reading a destination address from a data packet~~, comprising a~~

~~portion of said data frame~~ and for determining a ~~new~~ second connection identifier ~~for a new~~

~~receiver~~ based on ~~said~~ the destination address, the second connection identifier corresponding to

the receiver, the processing unit for generating new data packets from ~~received~~ the data packets

received by the receiver ~~of said data frame~~, ~~said~~ the new data packets ~~each~~ containing message

data and the second ~~said new~~ connection identifier, ~~said~~ wherein ~~generating new data packets~~ the

receiver receives ~~beginning prior to receipt of all of said~~ data packets ~~of said~~ that correspond to

the data frame while the new data packets are being generated;

an error checking unit for checking ~~received message data of said data frame~~ the new

data packets for transmission errors ~~according to~~ using a predetermined error checking technique

~~by comparing a~~ that compares reference data ~~having a rated value included in said data frame~~

~~with said received~~ to message data in the new data packets, wherein checking begins while the

receiver receives data packets that correspond to the data frame; and

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a transmission unit for sending ~~said~~ new data packets ~~of said data frame that were received error free to said new~~ to the receiver if the new data packets do not contain transmission errors.

29. (Currently Amended) The switching unit ~~according to~~ of claim 28, further comprising:

a first revaluation memory ~~used~~ for use in allocating ~~said new~~ the second connection identifier to ~~at least one connection identifier of~~ a received data packet.

30. (Currently Amended) The switching unit ~~according to~~ of claim 29, wherein ~~said~~ the first revaluation memory ~~comprises~~ contains an entry having a predetermined value that identifies ~~identifying~~ connection identifiers of received data packets ~~for which new connection identifiers must still be generated~~.

31. (Currently Amended) The switching unit ~~according to~~ of claim 28, further comprising:

a second revaluation memory ~~used~~ for use in allocating ~~said new~~ the second connection identifier to at least one destination address.

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32. (Currently Amended) The switching unit ~~according to~~ of claim 29 ~~31~~, wherein at least one of ~~said~~ the first revaluation memory and ~~said~~ the second revaluation memory ~~is~~ comprises an associative memory.